

MICROSWITCH MISFEED SENSOR UNITS

—GROOVE FEED TYPE—

① The groove feed type requires machining of a groove on the punch plate for installing the relation pin ④.

③ MSW

② WL

④ RSPIN

① SMA□

⑤ Microswitch (Z-15GD55-B)

⑥ Protective cover AP-Z

P	P ≥ 2.00	1.00 ≤ P < 2.00	P < 1.00
Y	3	2	1
G	15°	10°	10°

Part No.	Name	Catalog No.	Material	Part No.	Name	Catalog No.	Material
①	Misfeed pin	SMAS SMAL SMAX	M Equivalent to SKD11 H 60~63HRC	④	Relation pin	RSPIN	M SK4 S Black oxide (Fe ₃ O ₄)
②	Spring for misfeed pin	WL	P.1401	⑤	Microswitch	Z-15GD55-B	Made by OMRON
③	Screw plug	MSW	P.819	⑥	Protective cover	AP-Z	Made by OMRON

		WL Spring constant 1N/mm (0.1kgf/mm)										⑤ Microswitch (Z-15GD55-B)
		D4		D5		D6		D8		D10		
Type	φ D ₁	ℓ	d	max.F	d	max.F	d	max.F	d	max.F	d	
② WL	25	0.65	10	0.65	10	0.75	10	0.9	10	0.9	10	0.9
	30	0.7	12	0.7	12	0.8	12	0.9	12	0.9	12	0.9
	35	0.7	14	0.7	14	0.8	14	0.9	14	0.9	14	0.9
	40	0.7	16	0.7	16	0.8	16	0.9	16	0.9	16	0.9
	45	0.75	18	0.75	18	0.85	18	1.0	18	1.0	18	1.0
	50	0.75	20	0.75	20	0.85	20	1.0	20	1.0	20	1.0
	55	0.75	22	0.75	22	0.85	22	1.0	22	1.0	22	1.0
③ MSW	60	0.8	24	0.8	24	0.9	24	1.0	24	1.0	24	1.0
	65	0.8	26	0.8	26	0.9	26	1.1	26	1.1	26	1.1
	70	0.85	28	0.85	28	1.0	28	1.1	28	1.1	28	1.1
		M8 × P1.25	M10 × P1.5	M10 × P1.5	M12 × P1.5	M14 × P1.5	M14 × P1.5	M14 × P1.5	M14 × P1.5	M14 × P1.5	M14 × P1.5	M14 × P1.5

Spring load (N) = Spring constant (N/mm) × deflection F (mm) (N) = kgf × 9.80665

- Operation force OF 540g
- Return force RF: Min.114g
- Movement before operation PT: Max. 1.8mm
- Movement after operation OT: Min. 1.6mm
- Movement differential (hysteresis) MD: Max. 0.06mm
- Operating position OP: 21.5 ± 0.5mm
- Service temperature range: -15 ~ 80 °C

① Misfeed pin

B	Catalog No.		L					P	Base unit price	Volume discount unit price		
	Type	D	4	5	6	8	10	0.01mm increments	1~4 pieces	5~9	10~19	20~50
10	SMAS	4	50	60	70	80		1.00~3.97				
		5	50	60	70	80	90	100	2.00~4.97			
		6	50	60	70	80	90	100	2.00~5.97			
15	SMAL	4	60	70	80			1.00~3.97				
		5	60	70	80	90	100	2.00~4.97				
		6	60	70	80	90	100	2.00~5.97				
21	SMAX	4	60	70	80			1.20~3.97				
		5	60	70	80	90	100	2.00~4.97				
		6	60	70	80	90	100	2.00~5.97				
32		8	70	80	90	100		3.00~7.97				
		10	70	80	90	100	110	3.00~9.97				
		10	70	80	90	100	110	3.00~9.97				

Order **Catalog No.** — **L** — **P**
SMAS 6 — 80 — P3.00

Days to Ship **Quotation**

Alterations **Catalog No.** — **L(LC)** — **P(PC)** — **(BC-HC-NTC-PKC)**
SMAS 8 — LC79 — PC2.50

Alteration	Code	Spec.	1Code
	PC	Tip diameter change PC ≥ Pmin. ≥ 0.50 0.01mm increments	Quotation
	BC	Tip length change Y+2 ≤ BC ≤ Bmax. BC ≤ L(LC) - 30 0.1mm increments	Quotation
	LC	L dimension change 0.1mm increments If difference between L dimension and tip length is 30 or less, tip length is adjusted to L-30.	Quotation

Alteration	Code	Spec.	1Code
	HC	Head diameter change D ≤ HC < D+2 0.1mm increments	Quotation
	NTC	Elimination of tip taper	Quotation
	PKC	Tip diameter tolerance change p +0.01 → +0.005	Quotation

② Sensor units (②③④⑤⑥)

Catalog No.		②		Base unit price	Volume discount unit price		
Type	D	Type	ℓ	1~4 sets	5~9	10~19	20~50
MFD	4	WL	25				
	5		30				
	6		35				
	8		45				
	10		50	55	60	65	70

Order **Catalog No.** — **② Type-ℓ**
MFD 6 — WL 60

Days to Ship **Quotation**

③ Component parts (Individual parts)

Part No.	Name	Catalog No.	Base unit price	Volume discount unit price		
			1~4 pieces	5~9	10~19	20~50
④	Relation pin	RSPIN				
⑤	Microswitch	Z-15GD55-B				
⑥	Protective cover	AP-Z				

Refer to the corresponding pages for details of the following components.

Part No.	Name	Catalog No.	Page
②	Spring for misfeed pin	WL	P.1401
③	Screw plug	MSW	P.819

Order **Catalog No.** — **Z-15GD55-B**
Days to Ship **Quotation**

Microswitch mounting plates (RoHS)

MFB 2-φ4.5

Material: S45C, Black oxide (Fe₃O₄)

Catalog No.		Base unit price	Volume discount unit price		
Type	T	1~4 pieces	5~9	10~19	20~50
MFB	2.6				
	5.6				
	8.2				
	8.6				
	11.2				
	12.6				
	14.2				
18.2					

Standard for selecting thickness (T) of microswitch mounting plate

• The plate thickness must be decided assuming the use of a protective cover.

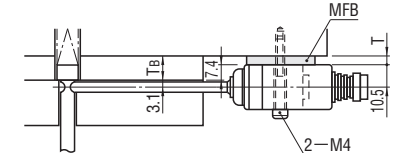


Plate thickness (T) = Backing plate thickness (T_B) - 7.4

Backing plate thickness (T _B)	Mounting plate thickness (T)
10	2.6
13	5.6
16	8.6
20	12.6

• MFB8.2, 11.2, 14.2 and 18.2 are specifications available for side hole types (P633).

COMPONENTS FOR MISFEED SENSORS